A MODERN ALDUS TELLS OF JOY IN MAKING BOOKS

Ohio Man Has Devoted Better Part of His Life to Task of Reviving Individualism That Dominated Ancient Printers' Works—Makes His Own Paper, Casts and Sets All Type, Prints and Binds the Press Product—Specimens Accepted by Smithsonian Institution

BOOKS MADE BY ONE MAN
UNIQUE CAPITAL EXHIBIT.

What are believed to be the only books ever produced—from the contents to the printing and binding—by one man working alone have just been placed on exhibition at the Smithsonian Institution. • • • This is part of the general exhibition in the division of graphic arts in the institution.—News item.

By DARD HUNTER.

THE Italian book printers of the fifteenth and sixteenth centuries have never been excelled. Their paper shows a richness in tone and texture which has never been equalled. The type possesses a freedom of stroke unknown today. The margins and formati are always satisfying, and the presswork displays much brilliance and a firmness that suggests sculpture.

From an artistic viewpoint book printing declined in the seventeenth century, but the eighteenth century produced three or four good printers. During the last thirty years a great revival in fine book production has taken place, starting with the work of William Morris at the Kelmscott Press in England. These latter day book printers have always imitated the fifteenth and sixteenth century printers in the style of paper and typography in general. Their desire was to arrive at the same artistic result that had been achieved by the early Venetian printers, who considered their occupation an art rather than a trade.

Tried to Reproduce Ancient Printers' Charm

For twenty years I labored trying to get the pleasing quality and excellence of old typography into the books that I was producing. To be sure, I used the so-called hand made paper from Italy; my type was of special design and the printing was executed with care. With all my pains the books that I produced always lacked that indefinable charm that the old volumes possessed. I have seen through the press upward of two hundred different books, but none of them ever pleased me—they did not carry with them the stamp of craftsman—they were just so much paper with a type impression.

The old books from the presses of Aldus and Nicholas Jenson haunted me. Why could I not, in this age, produce as fine typography as these fifteenth century artisans? Surely, with all the mechanical ingenuity of to-day in paper making, type founding and printing one should be able to equal, if not excel, the old typographers. But as much as I would try, my work always had that modern, uninteresting flavor of the workaday world and the steam printing press.

I thought if I went to Europe I could better imbibe an understanding of ancient typography so that I could return to America and print books equal to the printers of old. I went to Italy and there studied the art of making paper by hand. Then to Vienna, where I was able to enter the Kaiserliche Koeniglicke Graphische Lehr and Versuchs Anstalt, the oldest institute of the graphic arts in the world. I am now one of the three or four Americans that were granted diplomas at this royal Austrian school. I also studied type design at the Kunstgewerbe Schule in Vienna, and then went to London, where I entered the Royal Technical College, making a specialty of tool making.

After a number of years of study in Europe I returned to America, to again try my hand at book printing. My efforts were

Camera study of Dard Hunter, the Ohio man who makes books as did the early printers.

still unsatisfactory to myself, and my typography still suggested more the trade union than the guilds of the ancient craftsmen.

The trouble was this: I had been buying paper which had been made in a mill in another part of the world. This paper had been fabricated by men who knew or cared nothing about me or the books in which their product was to form such an important part. The type I had been using, although of my own design, had been made in a great commercial type foundry by men uninterested in my work. All I had been doing (like all the rest of the printers) was to set the mechanically made type and imprint it on the paper of which I had no part in the making. I had been simply printing books—not making them. These mechanically fashioned volumes were the product of the combined labors of hundreds—they were a conglomerate mass of ideas and workmanship.

I came to the conclusion that I had been working in the wrong direction. If I wanted to arrive at the particular excellence of the old printers I must use the methods of working that were used in the first centuries of the art. This involved many difficulties: I had to learn the arts of paper making and typography as the ancients had practised them. I began collecting old books and prints on these subjects, to be used as text books. My library kept growing and growing until now it contains perhaps the largest collection of old paper making and water marking literature in this country.

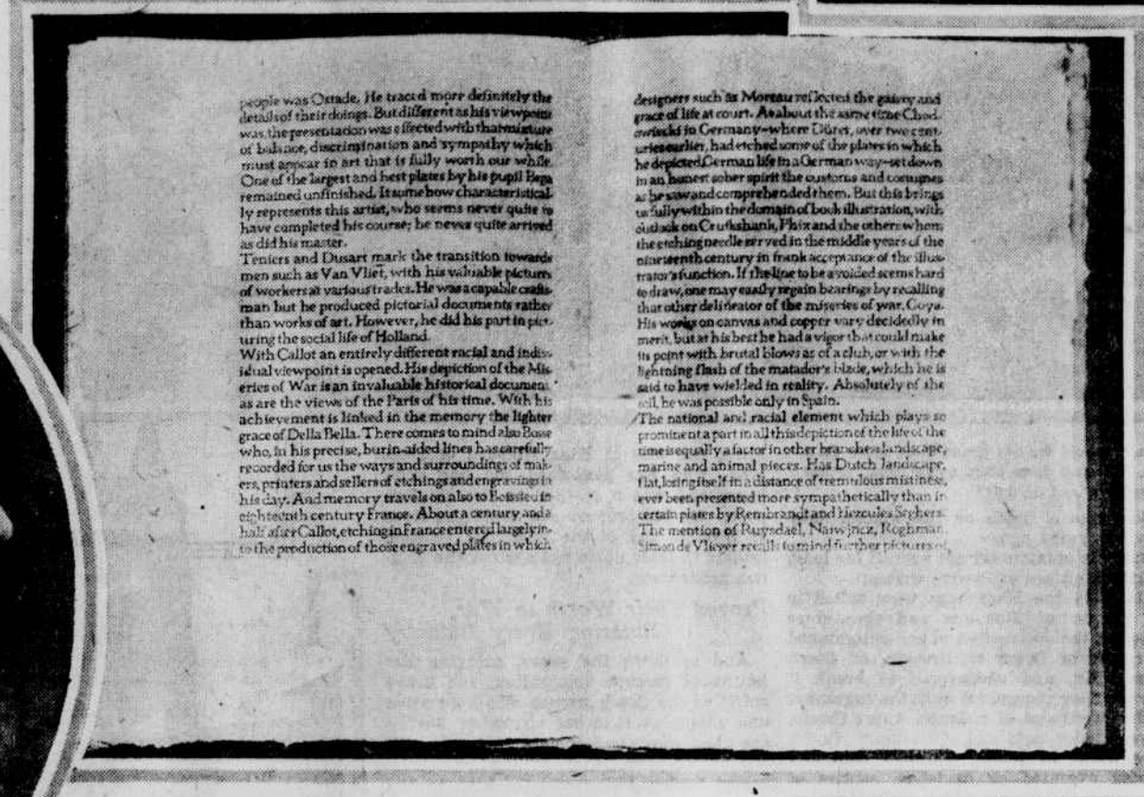
I found that to carry out the idea of equalling the old printers I must have my own paper mill and my own type foundry, as well as the printing room. My working materials for book production were now to be linen and cotton rags for the paper: bar steel, copper, lead, tin and antimony for the type. Formerly my materials had been paper and type.

I resolved to print but two books, but these would be all my own work—no other hand should enter their making.

With this idea in view I started in quest of a stream that would furnish suitable water for the making of hand made paper. I found a brook a bank of which, in Chillicothe, Ohio, had been used as a mill site two hundred years ago. The old millidam was still intact, I built a small mill myself, which I patterned after a cottage of Devonshire. It was of half timber construction, with a thatched roof made from rye straw which I had grown on my little farm for the purpose. I equipped this miniature mill with appliances such as had been used by the fifteenth century paper makers. An old creaky wooden water wheel reduced the linen and cotton rags to a fibrous pulp, from which I made each sheet of paper separately in a hand mould.

Next I set up a small type foundry, and with no other tools or utensils than those that would have been used four hundred years ago I cut the letter punches in steel, struck the matrices in copper and cast the font of type in a hand mould which I had patterned after an early model. When there was sufficient water to turn the water wheel I worked in the mill, and was able to make about seventy-five sheets of paper a day. When there was no water I made type, as upward of a hundred thousand pieces were needed for my project.

Specimen pages from the book that took seven years to produce. The maker does not work for gain but for love of the art of typography. Paper, type, printing and binding all were done by him alone.



people was Ostade. He traced more definitely the details of their doings. But different as his viewpoint was the presentation was affected with that mixture of balance, discrimination and sympathy which must appear in art that is fully worth our while. One of the largest and best plates by his pupil Bega remained unfinished. It is in how characteristically represents this artist, who seems never quite to have completed his course; he never quite arrived as did his master.

Teniers and Dusart mark the transition towards men such as Van Vliet, with his valuable pictures of workers at various trades. He was a capable craftsman but he produced pictorial documents rather than works of art. However, he did his part in picturing the social life of Holland.

With Callot an entirely different racial and individual viewpoint is opened. His depiction of the Miseries of War is an invaluable historical document as are the views of the Parts of his time. With his achievement is linked in the memory the lighter grace of Della Bella. There comes to mind also Basse who, in his precise, burin-aided lines has carefully recorded for us the ways and surroundings of makers, printers and sellers of etchings and engravings in his day. And memory travels on also to Boissieu in eighteenth century France. About a century and a half after Callot, etching in France entered largely into the production of those engraved plates in which

designers such as Moreau reflected the gaiety and grace of life at court. At about the same time Chodowiecki in Germany—where Dürer, over two centuries earlier, had etched some of the plates in which he depicted German life in a German way—set down in an honest sober spirit the customs and costumes as he saw and comprehended them. But this brings us fully within the domain of book illustration, with Cruikshank, Phiz and the others whom the etching needle served in the middle years of the nineteenth century in frank acceptance of the illustrator's function. If the line to be avoided seems hard to draw, one may easily regain bearings by recalling that other delineator of the miseries of war, Goya. His works on canvas and copper vary decidedly in merit, but at his best he had a vigor that could make its point with brutal blows as of a club, or with the lightning flash of the matador's blade, which he is said to have wielded in reality. Absolutely of the soil, he was possible only in Spain.

The national and racial element which plays so prominent a part in all this depiction of the life of the time is equally a factor in other branches—landscape, marine and animal pieces. His Dutch landscape, flat, losing itself in a distance of tremulous mistiness, ever been presented more sympathetically than in certain plates by Rembrandt and Hercules Seghers. The mention of Ruysdael, Nauwinex, Roghman, Simon de Vlieger recalls to mind further pictures of

At left—Paper mill built by the modern Aldus on a brook near Chillicothe, O., for the one man plant.

The one man print shop near Chillicothe where individualism is put into books.

Seven Years of Work Required to Make Two Books

When the paper and type were ready I printed the first book, using a press of the old hand lever type. The first book, an edition of two hundred, was finished late in 1915. The second book, of which there were two hundred and fifty copies printed, was completed in 1916. Both of these volumes were made for the Chicago Society of Etchers and were monographs on the art of etching. The entire work of paper making, type making and printing occupied a period of seven years of constant work.

No, these books did not please me, but I more nearly approached the peculiar elusive art of the fifteenth century typographers than I had ever done before. Perhaps it is better that I did not reach my ideal, for had this been accomplished life would have ceased to be interesting. When we cease struggling we cease growing.

The hand moulds on which the paper for these two books was made, as well as all the letter punches, matrices, type and tools that were used in their production, are now in the Smithsonian Institution at Washington, never to be used for printing again! The two books are there also, and on the label of the case in which they are housed may be read: "In the entire history of printing these are the first books to have been made in their entirety by the labor of one man."

Honey Bees Sending Three Westchester Boys Through College

CONCERNING the honey bee there are a few words that M. Maeterlinck neglected to include in his intimate diary. He had no conception, so it seems, of the bee that could jump into a family financial crisis and lay golden eggs for its master.

M. Maeterlinck might be astonished to learn that in America, where commerce is all jumbled up with sentiment, there are bees that go in for practical matters, such as paying off the mortgage on an old family homestead, fitting out a basement with washing machines and other luxurious equipment, and—in certain specific instances—sending needy young men to college.

But that's what the honey bees can do once they are brought up under the proper environment and encouraged to lead a 99 per cent. pure honey life.

It is of the educationally inclined bees that we are privileged to speak in an authoritative manner. In Cornell University this year there are registered one senior, one junior and one freshman, brothers from the same farm in Westchester county, whose bills for tuition, board, laundry and incidentals are met promptly and in full by a group of hard working bees, who are willing to sit up nights rather than get behind in their payments.

We have seen both the bees and the boys and can vouch for every item that we set down.

Father's Trade Is Plumbing, With Farm as an Incident

Up at Pleasantville, in the lake district of Westchester county, on a gorgeous big farm shadowed by an occasional weeping willow, with a real brook cutting the customary capers out in the meadow, lives Otto J. Spahn, a farming-plumber. But for all the cows and chickens, the crops and timber Mr. Spahn is a regular hot water heating, roofing and bathroom plumber. At least that's what the sign says.

Originally Mr. Spahn did his plumbing in metropolitan circles. Then he married and joined the Back to Nature Club. In those days a plumber in Pleasantville was a curiosity. To-day he's accepted as a matter of course along with the other twentieth century improvements. Some years he could have kept two foremen and a dozen helpers busy. But he didn't. He just took the jobs he could superintend himself and waited for the boys to grow up into the business. There were three of them coming along.

About the time other mothers were chanting about "I did not raise my boy to be a soldier" Mrs. Spahn had a refrain all her own. The first line ran: "I did not raise my boy to be a plumber."

The oldest boy, Otto J., Jr., who had been graduated from the Pleasantville High School and had gone into the students' training corps, chimed in with the same idea. From Ithaca, where he was answering reveille and attending classes between drill periods, he wrote down to the home folks and intimated that college, even in an army uniform, held out more or less attractions for him.

Then came the armistice and the disarmament of the students' training corps. Otto was home again.

Always Had Kept Bees, But Not as a Business

Otto told them frankly that he wanted a college education. He wasn't casting any aspersions against the plumbing profession, but he wanted to do something else—something with perhaps less pay but more dignity. Mrs. Spahn smiled and patted him on the back. He was a son after her own heart.

Otto, Sr., smiled, too, but scratched his head and said that he didn't know where the money was coming from. Plumber though he was, he possessed none of the proverbial opulence of the trade. He calculated to give a dollar's worth of plumbing for every dollar he received, and the profits from that kind of a transaction wouldn't send a boy to college and keep the home fires burning at one and the same time.

It was at this point that the honey bee entered the discussion. Mr. Spahn was a beekeeper on a small scale. He had been for years. Among other things, Mr. Spahn had the first roadside honey stand in Westchester county, or any county for that matter. He did it just casually as movie money for the youngsters and an infrequent Easter bonnet for "the Mrs." It wasn't a regular business.

Thinking the thing over, Mr. Spahn began to wonder if one hundred thousand bees could produce twenty-five pounds of honey why couldn't a million bees produce 250 pounds? That was an eighth of a ton. A lot of honey in any language.

That night Otto, Sr., and Otto, Jr., figured long and late with a pad and pencil. Just before dawn the answer spread itself before their eyes. With proper economy and all that sort of thing, a flat ton of honey would see Otto through a year of Cornell. Counting fatalities and the harum-scarum nonproducers, it meant four million bees on the outside.

"That's a lot of bees," said Otto, Sr.

"Yeah, but it's a lot of honey," said Otto, Jr.

Anyway, as an outcome of the night's negotiations Otto went back to Cornell, a private citizen again, but a registered freshman in the university. The following spring and summer four million honey bees went over the top for Cornell.

When more boys reached the college age, more bees were added to the apiary. To-day Mr. Spahn is a bee millionaire many times over. Offhand, he thinks there may be twenty million bees in the swarm. Still, he may have missed a few in his rough and ready way of taking a census.

At the last balancing of the books it appeared that the 1921 crop of honey would reach five tons. It is going to take almost that much to keep the three boys in Cornell, according to Mr. Spahn. College expenses have increased. He has to figure now on a ton and a half of honey per boy per college year. Which is—we can't get away from the feeling—putting rather a strain on the honey bee.

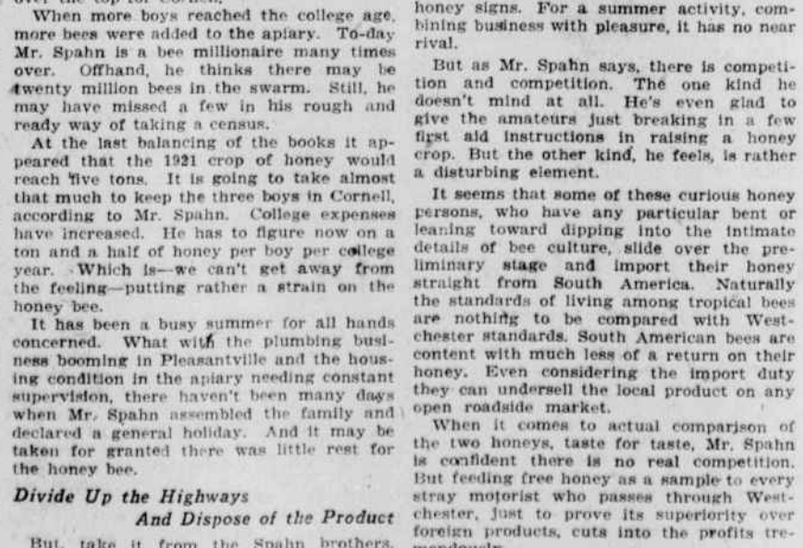
It has been a busy summer for all hands concerned. What with the plumbing business booming in Pleasantville and the housing condition in the apiary needing constant supervision, there haven't been many days when Mr. Spahn assembled the family and declared a general holiday. And it may be taken for granted there was little rest for the honey bee.

Divide Up the Highways And Dispose of the Product

But, take it from the Spahn brothers, singly or in a group, disposing of the honey makes the whole proposition altogether worth while. On any Sunday, Saturday or holiday throughout the vacation period the Spahns spread themselves over Westchester county and come to anchor under "Honey for Sale" signs.

The youngest son has a private hunting ground on the Boston Post Road, between Rye and Mamaroneck. Rain or shine, he's on the job ready to toss quarts of extracted honey into any passing motorist's tonneau.

The oldest Spahn boy holds down a stand on the Albany Post Road. Father and mother and the Cornell junior divide up the other main highways. In fact, the Jersey ferry is the only exit from the metropolis unguarded by a member of the Spahn family behind a honey stand.



While almost any Spahn you run across in Westchester county is sure to be a honey salesman it isn't safe to assume that every honey stand is kept by a Spahn. A few years ago you could have laid 4 to 1 that any given honey stand had a Spahn in the background, but to-day the story is quite different. Other budding merchants, stimulated by the marked collegiate success of the Spahn family, have discarded pop bottle stands and lemonade roosts and hung up honey signs. For a summer activity, combining business with pleasure, it has no near rival.

But as Mr. Spahn says, there is competition and competition. The one kind he doesn't mind at all. He's even glad to give the amateurs just breaking in a few first aid instructions in raising a honey crop. But the other kind, he feels, is rather a disturbing element.

It seems that some of these curious honey persons, who have any particular bent or leaning toward dipping into the intimate details of bee culture, slide over the preliminary stage and import their honey straight from South America. Naturally the standards of living among tropical bees are nothing to be compared with Westchester standards. South American bees are content with much less of a return on their honey. Even considering the import duty they can undersell the local product on any open roadside market.

When it comes to actual comparison of the two honeys, taste for taste, Mr. Spahn is confident there is no real competition. But feeding free honey as a sample to every stray motorist who passes through Westchester, just to prove its superiority over foreign products, cuts into the profits tremendously.

Still, even with South America in the running, business has been good enough with the Spahns, so there wasn't any delay in packing the three boys off for Cornell on schedule time.

Family Authorities on Bees, As Reporter Learned First Hand

Just before the boys left we made a special trip to Pleasantville and spent a day absorbing bee information. That is, we should have absorbed a lot, for Otto Spahn, Sr., is considered by the Bureau of Entomology the best informed beekeeper in southern New York State, and the boys are able lieutenants. Mr. Spahn did his part and the boys did theirs, but twenty-four hours later we had forgotten everything except that a bee is a well behaved, harmless citizen unless you cross him.

We did have a personally conducted tour through the bee district that we are not liable to forget very soon. It was on a warm, sunny day during a honey flow. A honey flow is a technical term indicating a working day for the honey bees. The bees are supposed to be too busy to notice visitors on working days.

Nevertheless, we accepted all the anti-bee armor the Spahns had to offer. Starting with a wire cage headpiece and a neck muffler, we went on through the list: Heavy coat, elbow length; padded gloves, trousers, clips and a smoke torch. If any bee sank his teeth in our flesh he had to fight his way every inch of the offensive.

Preceded by Otto, Sr. and Jr., we set foot in the bee preserve almost defiantly. And we would have kept up this fine air of dignity if a group of excited bees hadn't mistaken a point just to the south of our left ear for an entrance to their own hive. Passing over this incident briefly, we came through the tour unscathed and rather impressed by the diligence and sanitary perfection of the bee colonies.

Mr. Spahn has his apiary developed along the line of the newer apartment districts. He believes in plenty of light, air and breathing space. Cramped living quarters will not be endured by modern bees. As soon as there are more bees than beds the bees select a new queen and swarm.

Swarm, again, is a technical term, meaning leaving the neighborhood and seeking new quarters. One swarm means a net loss to the owner of something like one hundred thousand bees.

Mr. Spahn houses most of his bees in duplex affairs, although where the colonies are at all strong their homes run into four and five story apartments. He has appropriate streets laid out, with the more aristocratic families residing up on the heights.

With perhaps forty houses, all looking more or less identical, each bee knows his particular house and his room number. In the heavy traffic of a honey flow, where a couple of hundred bees are passing in and out of the main entrance to each house every minute, mistakes are sometimes made. So each house has a guard of bees stationed at the main door to keep out the strangers.

A dizzy bee, staggering home from the fields laden with provender, is certain to be stung to death if he starts in the wrong door. There is no neighborly spirit among the bees. Each citizen is expected to sit on his own front porch and do no visiting.

It was with considerable pride that Mr. Spahn made us acquainted with a queen bee. She was roving about on one of the lower floors of the hive, laying eggs at the rate of one a minute. Probably she did not appreciate that she was being interviewed by a correspondent of THE NEW YORK HERALD. She merely kicked her left leg, as much as to say: "Well, there goes another egg, thank goodness." That was about all we could get out of her.

Some of the drones were more friendly. One of them submitted willingly to a brief session of vivisection, so that we were able to carry away a vague notion of how to tell the age of a male bee. It hardly seemed worth the sacrifice. We are almost never curious about the ages of bees.

Life Like an Aviator's On Scout Duty Aloft

The average life of a field honey bee is about on a par with an aviator's life during scout duty over the lines. After six or eight weeks of active duty the field honey bee is laid to rest with a neat wooden cross over her grave. But she isn't missed. Every day more honey bees are born than could possibly be killed except by a tornado. And it only takes a week or so to train them as veteran fliers.

Just when we thought the bee trip was all over Mr. Spahn said that he had several more community centres on various locations in or near Pleasantville. Some of them he thought might make better specimens to exhibit for show purposes.

During the last few years there has been a tremendous stimulus to the bee raising industry in this country. Each year Mr. Spahn attends a bee conference at Ithaca, where up to two hundred bee keepers gather to swap bee information. The Government urged farmers to cultivate bees to help things along during the sugar shortage.

Now that sugar is back to normal there seems no good reason why the bees should be dropped. If properly handled they can serve most of the purposes of educational insurance. Plant a bee when the child is born and, according to Mr. Spahn, the boy can go through college with money to spare.

The honey bees may have robbed Pleasantville of three perfectly good plumbers. But if the matriculation works out to the *nth* power, Pleasantville is going to have two expert chemists and a professional geologist—all on account of the honey bee.

Which may or may not be a record in international honey circles.